

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/112577 A3

(51) International Patent Classification⁷:

A61B 8/00

(74) Agents: TENG, Paul et al.; Cooper & Dunham LLP, 1185 Avenue of the America, New York, NY 10036 (US).

(21) International Application Number:

PCT/US2004/019488

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 18 June 2004 (18.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/480,095 20 June 2003 (20.06.2003) US

(71) Applicant (for all designated States except US): U-SYSTEMS, INC. [US/US]; 110 Rose Orchard Way, San Jose, CA 95134 (US).

(72) Inventors: YU, Zengpin; 3434 Waverley Street, Palo Alto, CA 94306 (US). ZHAO, Danhua; 276 Woodruf Way, Milpitas, CA 95035 (US). NEFF, Thomas, P.; 4957 Farmham Drive, Newark, CA 94560 (US). ZHANG, Wei; 2902 Montair Way, Union City, CA 94587 (US). WANG, Shih-Ping; 409 Becker Lane, Los Altos, CA 94022 (US).

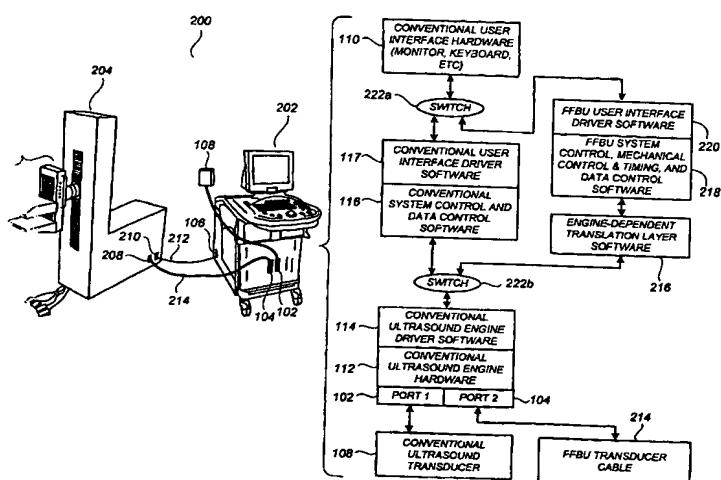
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: FULL-FIELD BREAST ULTRASOUND SYSTEM AND ARCHITECTURE



(57) Abstract: A modular, flexible architecture for offering full-field breast ultrasound (FFBU) functionality and general-purpose ultrasound functionality in a single system is described. A conventional, general-purpose ultrasound system (200) is modified with an FFBU toolkit to create a dual-capability ultrasound system (202), the dual-capability ultrasound system (200) being able to accommodate both general-purpose ultrasound functionality and FFBU functionality, using a single ultrasound engine (112). Among other advantages, real-world clinical environments may enjoy cost savings for initial system procurement, space savings on clinic floors, easier and less expensive system upgrades, and the ability to use a single system and user interface for both FFBU screening and for follow-up diagnosis, biopsy, etc. Among other advantages from an ultrasound manufacturer's perspective are the ability to quickly and/or more easily come to market with an FFBU-related offering by modifying their existing general-purpose ultrasound systems (202) with FFBU toolkits to quickly create dual-capability ultrasound systems (200).

WO 2004/112577 A3



(88) Date of publication of the international search report:
24 March 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.